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096,004 - SeqList.ST25.txt
SEQUENCE LISTING



<110> Geron Corporation
McWhir, Jim
Gold, Joseph D.
Schiff, J. Michael

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<151> 2000-11-27

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Arg Val Ile Phe Tyr Val Met Val Asp Asp Val Ser Arg Met Pro Leu
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Ile Glu Leu Gly Pro Leu Arg Ser Phe Lys Val Phe Glu Val Lys Pro
Page 12

180

Glu Arg Arg Trp Gln Asp Val Ser Met Val Arg Met Lys Thr Ile Gly
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Met Asp Val Asp Gln Val Phe Gln Asp Glu Phe Gly Val Glu Thr Leu
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Asp Glu Phe Thr Tyr Glu Arg Arg Lys Glu Ser Ala Ala Tyr Ile Pro
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Phe Gly Glu Gly Asp Phe Tyr Tyr His Ala Ala Ile Phe Gly Gly Thr
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Lys Asp Lys Lys Asn Asp Ile Glu Ala Gln Trp His Asp Glu Ser His
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Leu Asn Lys Tyr Phe Leu Leu Asn Lys Pro Thr Lys Ile Leu Ser Pro
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Page 13

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ttg Leu	tgg Trp	ata Ile 35	tat Tyr	cac His	tca Ser	aag Lys	aac Asn 40	cca Pro	gaa Glu	gtt Val	gat Asp	gac Asp 45	agc Ser	agt Ser	gct Ala		144
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gcg Ala	ccg Pro	gtt Val 115	gtg Val	tgg Trp	gaa Glu	ggc Gly	act Thr 120	tac Tyr	aac Asn	aaa Lys	gcc Ala	atc Ile 125	cta Leu	gaa Glu	aat Asn		384
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gga Gly 145	aga Arg	tat Tyr	att Ile	gag Glu	cat His 150	tac Tyr	ttg Leu	gag Glu	gag Glu 155	ttc Phe	gta Val	aca Thr	tct Ser	gct Ala	aat Asn 160		480
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Glu Ser Ala Ala Tyr Ile Pro Phe Gly Gln Gly Asp Phe Tyr Tyr His
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gca gcc att ttt gga gga aca ccg att cag gtt ctc aac atc acc cag 912
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 Lys Val Phe Glu Val Lys Pro Glu Lys Arg Trp Gln Asp Ile Ser Met
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50 55 60	
tcg ttg cca agg atg gtc tac ccc cag cca aag gtg ctg aca ccg tgg	240
Ser Leu Pro Arg Met Val Tyr Pro Gln Pro Lys Val Leu Thr Pro Trp	
65 70 75 80	
aag gat gtc ctc gtg gtg acc cct tgg ctg gct ccc att gtc tgg gag	288
Lys Asp Val Leu Val Val Thr Pro Trp Leu Ala Pro Ile Val Trp Glu	
85 90 95	
ggc aca ttc aac atc gac atc ctc aac gag cag ttc agg ctc cag aac	336
Gly Thr Phe Asn Ile Asp Ile Leu Asn Glu Gln Phe Arg Leu Gln Asn	
100 105 110	
acc acc att ggg tta act gtg ttt gcc atc aag aaa tac gtg gct ttc	384
Thr Thr Ile Gly Leu Thr Val Phe Ala Ile Lys Lys Tyr Val Ala Phe	
115 120 125	
ctg aag ctg ttc ctg gag acg gcg gag aag cac ttc atg gtg ggc cac	432
Leu Lys Leu Phe Leu Glu Thr Ala Glu Lys His Phe Met Val Gly His	
130 135 140	
cgt gtc cac tac tat gtc ttc acc gac cag ctg gcc gcg gtg ccc cgc	480
Arg Val His Tyr Tyr Val Phe Thr Asp Gln Leu Ala Ala Val Pro Arg	
145 150 155 160	
gtg acg ctg ggg acc ggt cgg cag ctg tca gtg ctg gag gtg cgc gcc	528
Val Thr Leu Gly Thr Gly Arg Gln Leu Ser Val Leu Glu Val Arg Ala	

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165	170	175	
tac aag cgc tgg cag gac gtg tcc atg cgc cgc atg gag atg atc agt Tyr Lys Arg Trp Gln Asp Val Ser Met Arg Arg Met Glu Met Ile Ser 180 185 190			576
gac ttc tgc gag cgg cgc ttc ctc agc gag gtg gat tac ctg gtg tgc Asp Phe Cys Glu Arg Arg Phe Leu Ser Glu Val Asp Tyr Leu Val Cys 195 200 205			624
gtg gac gtg gac atg gag ttc cgc gac cac gtg ggc gtg gag atc ctg Val Asp Val Asp Met Glu Phe Arg Asp His Val Gly Val Glu Ile Leu 210 215 220			672
act ccg ctg ttc ggc acc ctg cac ccc ggc ttc tac gga agc agc cgg Thr Pro Leu Phe Gly Thr Leu His Pro Gly Phe Tyr Gly Ser Ser Arg 225 230 235 240			720
gag gcc ttc acc tac gag cgc cgg ccc cag tcc cag gcc tac atc ccc Glu Ala Phe Thr Tyr Glu Arg Arg Pro Gln Ser Gln Ala Tyr Ile Pro 245 250 255			768
aag gac gag ggc gat ttc tac tac ctg ggg ggg ttc ttc ggg ggg tcg Lys Asp Glu Gly Asp Phe Tyr Tyr Leu Gly Gly Phe Phe Gly Gly Ser 260 265 270			816
gtg caa gag gtg cag cgg ctc acc agg gcc tgc cac cag gcc atg atg Val Gln Glu Val Gln Arg Leu Thr Arg Ala Cys His Gln Ala Met Met 275 280 285			864
gtc gac cag gcc aac ggc atc gag gcc gtg tgg cac gac gag agc cac Val Asp Gln Ala Asn Gly Ile Glu Ala Val Trp His Asp Glu Ser His 290 295 300			912
ctg aac aag tac ctg ctg cgc cac aaa ccc acc aag gtg ctc tcc ccc Leu Asn Lys Tyr Leu Leu Arg His Lys Pro Thr Lys Val Leu Ser Pro 305 310 315 320			960
gag tac ttg tgg gac cag cag ctg ctg ggc tgg ccc gcc gtc ctg agg Glu Tyr Leu Trp Asp Gln Gln Leu Leu Gly Trp Pro Ala Val Leu Arg 325 330 335			1008
aag ctg agg ttc act gcg gtg ccc aag aac cac cag gcg gtc cgg aac Lys Leu Arg Phe Thr Ala Val Pro Lys Asn His Gln Ala Val Arg Asn 340 345 350			1056
ccg tga Pro			1062

<210> 11
 <211> 353
 <212> PRT
 <213> Homo sapiens

<400> 11

Met Ala Glu Val Leu Arg Thr Leu Ala Gly Lys Pro Lys Cys His Ala
 1 5 10 15

Leu Arg Pro Met Ile Leu Phe Leu Ile Met Leu Val Leu Val Leu Phe
 Page 18

20

25

30

Gly Tyr Gly Val Leu Ser Pro Arg Ser Leu Met Pro Gly Ser Leu Glu
 35 40 45

Arg Gly Phe Cys Met Ala Val Arg Glu Pro Asp His Leu Gln Arg Val
 50 55 60

Ser Leu Pro Arg Met Val Tyr Pro Gln Pro Lys Val Leu Thr Pro Trp
 65 70 75 80

Lys Asp Val Leu Val Val Thr Pro Trp Leu Ala Pro Ile Val Trp Glu
 85 90 95

Gly Thr Phe Asn Ile Asp Ile Leu Asn Glu Gln Phe Arg Leu Gln Asn
 100 105 110

Thr Thr Ile Gly Leu Thr Val Phe Ala Ile Lys Lys Tyr Val Ala Phe
 115 120 125

Leu Lys Leu Phe Leu Glu Thr Ala Glu Lys His Phe Met Val Gly His
 130 135 140

Arg Val His Tyr Tyr Val Phe Thr Asp Gln Leu Ala Ala Val Pro Arg
 145 150 155 160

Val Thr Leu Gly Thr Gly Arg Gln Leu Ser Val Leu Glu Val Arg Ala
 165 170 175

Tyr Lys Arg Trp Gln Asp Val Ser Met Arg Arg Met Glu Met Ile Ser
 180 185 190

Asp Phe Cys Glu Arg Arg Phe Leu Ser Glu Val Asp Tyr Leu Val Cys
 195 200 205

Val Asp Val Asp Met Glu Phe Arg Asp His Val Gly Val Glu Ile Leu
 210 215 220

Thr Pro Leu Phe Gly Thr Leu His Pro Gly Phe Tyr Gly Ser Ser Arg
 225 230 235 240

Glu Ala Phe Thr Tyr Glu Arg Arg Pro Gln Ser Gln Ala Tyr Ile Pro
 245 250 255

Lys Asp Glu Gly Asp Phe Tyr Tyr Leu Gly Gly Phe Phe Gly Gly Ser
 260 265 270

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Val Gln Glu Val Gln Arg Leu Thr Arg Ala Cys His Gln Ala Met Met
275 280 285

Val Asp Gln Ala Asn Gly Ile Glu Ala Val Trp His Asp Glu Ser His
290 295 300

Leu Asn Lys Tyr Leu Leu Arg His Lys Pro Thr Lys Val Leu Ser Pro
305 310 315 320

Glu Tyr Leu Trp Asp Gln Gln Leu Leu Gly Trp Pro Ala Val Leu Arg
325 330 335

Lys Leu Arg Phe Thr Ala Val Pro Lys Asn His Gln Ala Val Arg Asn
340 345 350

Pro

<210> 12
<211> 1065
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(1065)
<223>

<400> 12	
atg gcc gag gtg ttg cgg acg ctg gcc gga aaa cca aaa tgc cac gca	48
Met Ala Glu Val Leu Arg Thr Leu Ala Gly Lys Pro Lys Cys His Ala	
1 5 10 15	
ctt cga cct atg atc ctt ttc cta ata atg ctt gtc ttg gtc ttg ttt	96
Leu Arg Pro Met Ile Leu Phe Leu Ile Met Leu Val Leu Val Leu Phe	
20 25 30	
ggt tac ggg gtc cta agc ccc aga agt cta atg cca gga agc ctg gaa	144
Gly Tyr Gly Val Leu Ser Pro Arg Ser Leu Met Pro Gly Ser Leu Glu	
35 40 45	
cgg ggg ttc tgc atg gct gtt agg gaa cct gac cat ctg cag cgc gtc	192
Arg Gly Phe Cys Met Ala Val Arg Glu Pro Asp His Leu Gln Arg Val	
50 55 60	
tcg ttg cca agg atg gtc tac ccc cag cca aag gtg ctg aca ccg tgt	240
Ser Leu Pro Arg Met Val Tyr Pro Gln Pro Lys Val Leu Thr Pro Cys	
65 70 75 80	
agg aag gat gtc ctc gtg gtg acc cct tgg ctg gct ccc att gtc tgg	288
Arg Lys Asp Val Leu Val Val Thr Pro Trp Leu Ala Pro Ile Val Trp	
85 90 95	
gag ggc acg ttc aac atc gac atc ctc aac gag cag ttc agg ctc cag	336
Glu Gly Thr Phe Asn Ile Asp Ile Leu Asn Glu Gln Phe Arg Leu Gln	
100 105 110	

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aac Asn	acc Thr	acc Thr 115	att Ile	ggg Gly	tta Leu	act Thr	gtg Val 120	ttt Phe	gcc Ala	atc Ile	aag Lys	aaa Lys 125	tac Tyr	gtg Val	gct Ala	384
ttc Phe	ctg Leu 130	aag Lys	ctg Leu	ttc Phe	ctg Leu	gag Glu 135	acg Thr	gcg Ala	gag Glu	aag Lys	cac His 140	ttc Phe	atg Met	gtg Val	ggc Gly	432
cac His 145	cgt Arg	gtc Val	cac His	tac Tyr	tat Tyr 150	gtc Val	ttc Phe	acc Thr	gac Asp	cag Gln 155	ccg Pro	gcc Ala	gcg Ala	gtg Val	ccc Pro 160	480
cgc Arg	gtg Val	acg Thr	ctg Leu	ggg Gly 165	acc Thr	ggt Gly	cgg Arg	cag Gln	ctg Leu 170	tca Ser	gtg Val	ctg Leu	gag Glu	gtg Val 175	ggc Gly	528
gcc Ala	tac Tyr	aag Lys	cgc Arg 180	tgg Trp	cag Gln	gac Asp	gtg Val	tcc Ser 185	atg Met	cgc Arg	cgc Arg	atg Met	gag Glu 190	atg Met	atc Ile	576
agt Ser	gac Asp	ttc Phe 195	tgc Cys	gag Glu	cgg Arg	cgc Arg	ttc Phe 200	ctc Leu	agc Ser	gag Glu	gtg Val	gat Asp 205	tac Tyr	ctg Leu	gtg Val	624
tgc Cys	gtg Val 210	gac Asp	gtg Val	gac Asp	atg Met	gag Glu 215	ttc Phe	cgc Arg	gac Asp	cat His	gtg Val 220	ggc Gly	gtg Val	gag Glu	atc Ile	672
ctg Leu 225	act Thr	ccg Pro	ctg Leu	ttc Phe	ggc Gly 230	acc Thr	ctg Leu	cac His	ccc Pro	agc Ser 235	ttc Phe	tac Tyr	gga Gly	agc Ser	agc Ser 240	720
cgg Arg	gag Glu	gcc Ala	ttc Phe	acc Thr 245	tac Tyr	gag Glu	cgc Arg	cgg Arg	ccc Pro 250	cag Gln	tcc Ser	cag Gln	gcc Ala	tac Tyr 255	atc Ile	768
ccc Pro	aag Lys	gac Asp	gag Glu 260	ggc Gly	gat Asp	ttc Phe	tac Tyr	tac Tyr 265	atg Met	ggg Gly	gcg Ala	ttc Phe	ttc Phe 270	ggg Gly	ggg Gly	816
tcg Ser	gtg Val	caa Gln 275	gag Glu	gtg Val	cag Gln	cgg Arg	ctc Leu 280	acc Thr	agg Arg	gcc Ala	tgc Cys	cac His 285	cag Gln	gcc Ala	atg Met	864
atg Met	gtc Val 290	gac Asp	cag Gln	gcc Ala	aac Asn	ggc Gly 295	atc Ile	gag Glu	gcc Ala	gtg Val	tgg Trp 300	cac His	gac Asp	gag Glu	agc Ser	912
cac His 305	ctg Leu	aac Asn	aag Lys	tac Tyr	cta Leu 310	ctg Leu	cgc Arg	cac His	aaa Lys	ccc Pro 315	acc Thr	aag Lys	gtg Val	ctc Leu	tcc Ser 320	960
ccc Pro	gag Glu	tac Tyr	ttg Leu	tgg Trp 325	gac Asp	cag Gln	cag Gln	ctg Leu	ctg Leu 330	ggc Gly	tgg Trp	ccc Pro	gcc Ala	gtc Val 335	ctg Leu	1008
agg Arg	aag Lys	ctg Leu	agg Arg 340	ttc Phe	act Thr	gcg Ala	gtg Val	ccc Pro 345	aag Lys	aac Asn	cac His	cag Gln	gcg Ala 350	gtc Val	cgg Arg	1056
aac Asn	ccg Pro	tga														1065

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<210> 13
 <211> 354
 <212> PRT
 <213> Homo sapiens

<400> 13

Met Ala Glu Val Leu Arg Thr Leu Ala Gly Lys Pro Lys Cys His Ala
 1 5 10 15

Leu Arg Pro Met Ile Leu Phe Leu Ile Met Leu Val Leu Val Leu Phe
 20 25 30

Gly Tyr Gly Val Leu Ser Pro Arg Ser Leu Met Pro Gly Ser Leu Glu
 35 40 45

Arg Gly Phe Cys Met Ala Val Arg Glu Pro Asp His Leu Gln Arg Val
 50 55 60

Ser Leu Pro Arg Met Val Tyr Pro Gln Pro Lys Val Leu Thr Pro Cys
 65 70 75 80

Arg Lys Asp Val Leu Val Val Thr Pro Trp Leu Ala Pro Ile Val Trp
 85 90 95

Glu Gly Thr Phe Asn Ile Asp Ile Leu Asn Glu Gln Phe Arg Leu Gln
 100 105 110

Asn Thr Thr Ile Gly Leu Thr Val Phe Ala Ile Lys Lys Tyr Val Ala
 115 120 125

Phe Leu Lys Leu Phe Leu Glu Thr Ala Glu Lys His Phe Met Val Gly
 130 135 140

His Arg Val His Tyr Tyr Val Phe Thr Asp Gln Pro Ala Ala Val Pro
 145 150 155 160

Arg Val Thr Leu Gly Thr Gly Arg Gln Leu Ser Val Leu Glu Val Gly
 165 170 175

Ala Tyr Lys Arg Trp Gln Asp Val Ser Met Arg Arg Met Glu Met Ile
 180 185 190

Ser Asp Phe Cys Glu Arg Arg Phe Leu Ser Glu Val Asp Tyr Leu Val
 195 200 205

Cys Val Asp Val Asp Met Glu Phe Arg Asp His Val Gly Val Glu Ile
 210 215 220

096,004 - SeqList.ST25.txt

Leu Thr Pro Leu Phe Gly Thr Leu His Pro Ser Phe Tyr Gly Ser Ser
225 230 235 240

Arg Glu Ala Phe Thr Tyr Glu Arg Arg Pro Gln Ser Gln Ala Tyr Ile
245 250 255

Pro Lys Asp Glu Gly Asp Phe Tyr Tyr Met Gly Ala Phe Phe Gly Gly
260 265 270

Ser Val Gln Glu Val Gln Arg Leu Thr Arg Ala Cys His Gln Ala Met
275 280 285

Met Val Asp Gln Ala Asn Gly Ile Glu Ala Val Trp His Asp Glu Ser
290 295 300

His Leu Asn Lys Tyr Leu Leu Arg His Lys Pro Thr Lys Val Leu Ser
305 310 315 320

Pro Glu Tyr Leu Trp Asp Gln Gln Leu Leu Gly Trp Pro Ala Val Leu
325 330 335

Arg Lys Leu Arg Phe Thr Ala Val Pro Lys Asn His Gln Ala Val Arg
340 345 350

Asn Pro

<210> 14
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Amplification Primer

<220>
<221> misc_feature
<222> (1)..(23)
<223> Amplification Primer

<400> 14
ggcctgtact acatttgcct gga

23

<210> 15
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Amplification Primer

<220>
 <221> misc_feature
 <222> (1)..(26)
 <223> Amplification Primer

<400> 15
 gaaatagtgt caagtttcca tcacaa

26

<210> 16
 <211> 55
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Amplification Primer

<220>
 <221> misc_feature
 <222> (1)..(55)
 <223> Amplification Primer

<400> 16
 cgatgtggct gcggagccac cggcaggtaa tcctgttgat gctgattgtc tcaac

55

<210> 17
 <211> 50
 <212> PRT
 <213> Mus musculus

<400> 17

Met Ile Thr Met Leu Gln Asp Leu His Val Asn Lys Ile Ser Met Ser
 1 5 10 15

Arg Ser Lys Ser Glu Thr Ser Leu Pro Ser Ser Arg Ser Gly Ser Gln
 20 25 30

Glu Lys Ile Met Asn Val Lys Gly Lys Val Ile Leu Leu Met Leu Ile
 35 40 45

Val Ser
 50

<210> 18
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Chimera Mouse/Pig

<400> 18

Met Trp Leu Arg Ser His Arg Gln Val Ile Leu Leu Met Leu Ile Val
 Page 24

1 5 10 15

Ser

<210> 19
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Chimera Mouse/Pig

<400> 19

Met Trp Leu Arg Ser His Arg Gln Val Val Leu Ser Met Leu Leu Val
 1 5 10 15

Ser

<210> 20
 <211> 15
 <212> PRT
 <213> Sus scrofa

<400> 20

Met Asn Val Lys Gly Arg Val Val Leu Ser Met Leu Leu Val Ser
 1 5 10 15